ECOLOGY AND ENVIRONMENT, INC.,

REGION VI

MEMORANDUM

Reviewed by 6AW-SC
date 2/12/86

SUPERFUND FILE

SEP 08 1992

REORGANIZED

TO: Keith Bradley, Region VI RPO

FROM: Hunt Chapman, Chemist

THRU: K.H. Malone, RPM

DATE: December 12, 1985

SUBJ: Sampling inspection at U.S. Gypsum, Corsicana, TX. (TX10022)
TDD# R06-8507-20

TXD007354392

X-Ref SA Vol #1

On August 27, 1985, the FIT (Hunt Chapman and Francis Verhalen) conducted an off-site sampling inspection at U.S. Gypsum in Corsicana, TX. The activity at this site is the manufacture of wool insulation from steel mill slag and basalt. Seven low soil samples were taken and analyzed for metals only.

The sample results from an earlier sampling inspection (December 17, 1984) conducted by the FIT, did not clearly define the ambient soil background concentrations for metals in the area. The purpose of the August 27th sampling inspection was to take additional off site soil samples to better characterize these background concentrations and specifically determine if the levels of zinc at Stations 05 and 06 represent significant contamination.

Table 1 lists the sampling locations and a description of their proximity to the site. Stations 01-08 were sampled on December 17, 1984 and Stations 10-16 were sampled on August 27, 1985. The stations are also shown on the site sketch included in this report.

From the samples taken on August 27th, Stations 14, 15 and 16 seem to be representative of background values for this area. Stations 10, 11, 12 and 13 contain elevated levels of zinc and lead. Stations 10 and 11 also contain elevated levels of arsenic. The spike recovery for this compound is low indicating that the true Arsenic concentrations may be higher. Station 10 appears to have an elevated level of mercury, however, the lab blank and rinsate blank contain mercury indicating cross contamination.

Considering the proximity of these stations to the site, the elevated levels of lead and zinc tend to support the earlier hypothesis (June 13, 1985 memo from Hunt Chapman to EPA) that these elevated levels may represent contamination via air emissions from the U.S. Gypsum site. Stations 10 and 11 are north of the U.S. Gypsum plant and Stations 12 and 13 are south of

the plant. Considering the prevailing winds in the area (from the south or north), the areas of these stations would be logical areas of particulate deposition from stack emissions. Fugitive dust from the landfill is also a consideration as a source of particulate contamination. While sampling, the FIT observed dust from trucks on the landfill dumping waste material.

In a site inspection report dated August 25, 1983, it was stated that U.S. Gypsum filters their stack emissions for particulates and SO_2 in accordance with permits they hold through the Texas Air Control Board. It is recommended that the Texas Air Control Board be contacted in order to review the U.S. Gypsum stack emission permit and monitoring data if available. If possible, an estimate of the impact of the stack emissions relative to the concentrations found during sampling should be done to determine if all of the contamination is coming from the stack or if part of it could be from an additional source, i.e. fugitive dust from the landfill. In addition, since the zinc concentrations are significant, more off-site sampling should be conducted to determine the extent of contamination to the north and south of the site. This sampling should include surface soil and ambient air monitoring to fully assess the health effects of the contamination.

As stated earlier, the additional off-site sampling on August 27th was done to determine if contamination had reached Stations 05 and 06. From this data, it appears that it has. However, since these samples were taken in probable drainage pathways, it can not be asertained whether or not it is a result of run-off or air depostition. It should be noted that Station 05 is in the drainage pathway used when two ponds on site were drained and filled by U.S. Gypsum. It is not known what was in the ponds, but the drainage elicited complaints from neighbors.

An additional task in this TDD was to check the State files and report on U.S. Gypsum's RCRA status. The only item in the State's files on U.S. Gypsum is the Part I application submitted by them on June 6, 1983. A copy of this application is included in this report.

Recommendations:

1) Obtain a copy of U.S. Gypsum's air permit and monitoring data from the Texas Air Control Board.

2) Take additional soil sample to determine the extent of contamination. Take air samples around the landfill to check for air contamination.

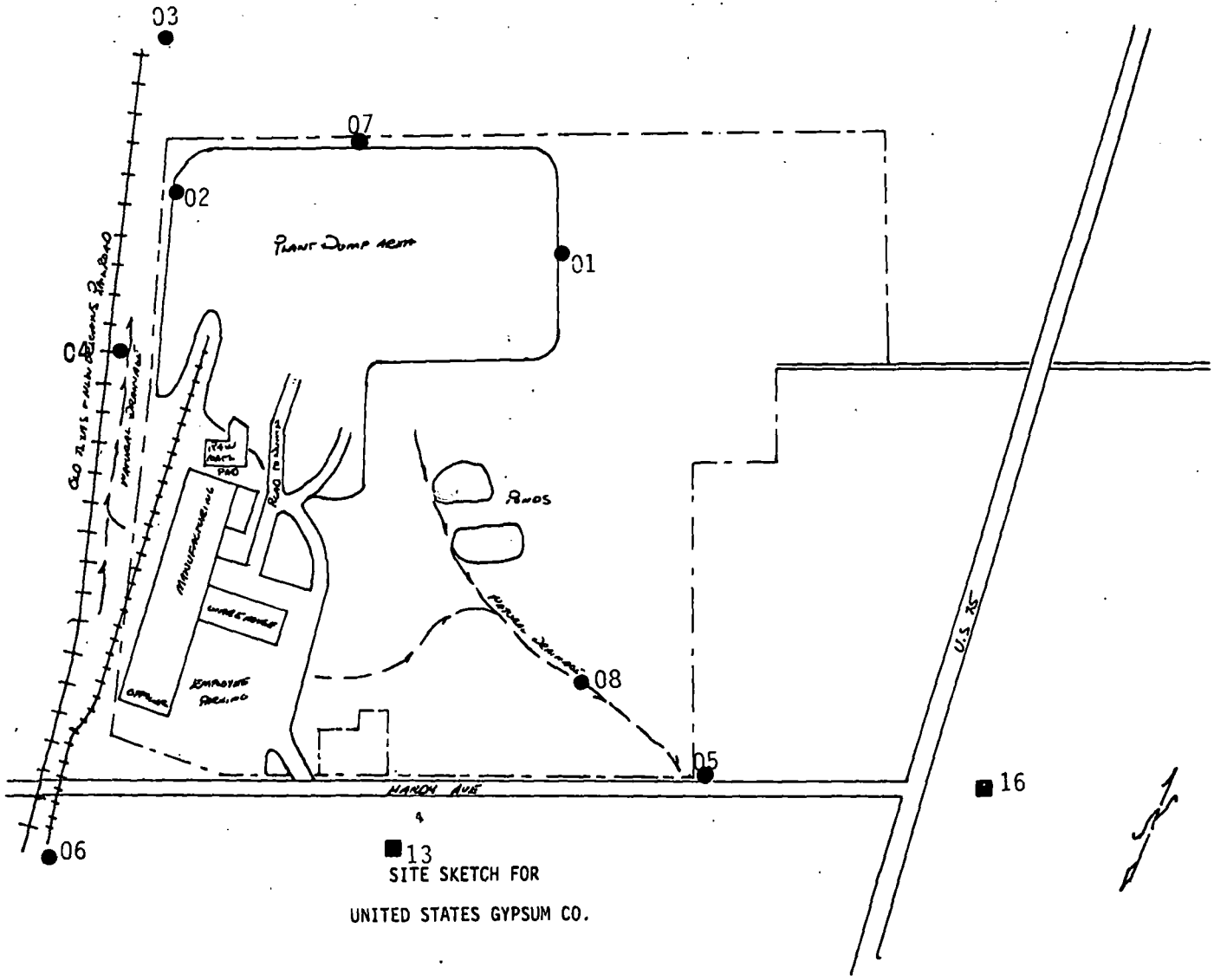
TABLE I

SAMPLES TAKEN ON DECEMBER 17, 1984

	DESCRIPTION
Station 01	10 feet east of landfill (6" deep)
Station 02	Sample of the waste material from the NW corner of the landfill
Station 03	50 feet north of the site at the NW corner
Station 04	West side of the landfill in drainage ditch (10 feet from the edge of the landfill)
Station 05	Drainage path off-site approximately 50 feet west of the property line
Station 06	South of Hardy Road 6 feet east of RR track
Station 07	Sample of waste material from the north side of the landfill
Station 08	Drainage path on-site approximately 1000 feet east of manufacturing plant

SAMPLES TAKEN ON AUGUST 27, 1985

Station 10	1/4 mile north of site and 100 feet east of RR track
Station 11	Approx. 1/2 mile north of NE corner of landfill
Station 12	Approx 1/4 mile south of site and 50 feet east of RR tracks next to barbed wire fence on a hill
Station 13	Approx 1/4 mile south of Hardy Ave in vacant lot behind mini storage warehouse
Station 14	500 feet west of Highway 75 behind East Texas District Office of the Pentecostal Church of God.
Station 15	Approx .2 miles down Fife Road behind Kingdom Hall of Jehovah's Witnesses
Station 16	Directly east of Hardy Road approx. 100' east and across Highway 75



SITE SKETCH FOR

UNITED STATES GYPSUM CO.

● - 12/17/84 sampling

■ - 8/27/85 sampling

B

PART I : GENERAL INFORMATION

#33331

A. Does your firm generate Industrial Solid Waste(s) as defined in the TDWR Rules?

☒ Yes ☐ No

B. Company Name: United States Gypsum Company

Plant - P.O. Box: 1948	Corsicana	TExas	75110
P.O. Box	City	State	Zip
Plant - Street Address: Hardy Avenue	Corsicana	Texas	75110
Address	City	State	Zip

Headquarters (if other than above):

101 South Wacker Drive	Chicago	Illinois	60606
P.O. Box/Street	City	State	Zip

C. Give the location of any disposal site(s) controlled by your firm other than plant or manufacturing site listed in Section B above:

1. None
   Location | City | County | State | Zip
2. Location | City | County | State | Zip
3. Location | City | County | State | Zip

D. **Number of persons employed:** 80 U.S. EPA I.D. Number: NONE

TXD007354392

E. Person to be contacted regarding solid waste management:

R. J. Skewes	Works Manager	Phone: 214	874-4781
Name	Title	Area Code	Telephone Number

F. Give numbers of any TDWR permits, orders, etc. held, or applied for, by your firm (specify type):

None

G. Nature of business and/or description of products manufactured:

Manufacture of mineral fiber insulation.

H. I certify the information herein is complete and accurate to the best of my knowledge:

R. J. Skewes
Signature

6/6/83
Date

06/08

PART II : WASTE INVENTORY

WASTE DESCRIPTION

A. WASTE NO. 1 OF 3 | B. SIC CODE (if known) 3296

C. FORM (check one)
☒ Solid ☐ Liquid ☐ Gas
☐ Sludge/Slurry _____ % solid

D. QUANTITY GENERATED PER MONTH:
2,700,000 (estimated)
☐ Gallons ☒ Pounds ☐ Cubic Yards

E. Predominately: ☐ Organic ☒ Inorganic

F. CHARACTERISTICS: pH 6-7
Solubility Insoluble (g/100g H_2O) Corrosion D.N.A. (mm/yr)
Toxicity D.N.A. (LD_{50}, LC_{50}, LDL_0) Flash Point DNA °C

G. DESCRIPTION (major components): Solid waste from manufacture of mineral fiber insulation. Chemistry and appearance closely resembles sand.

H. Is this a hazardous waste as defined by the U.S. EPA? ☐ Yes ☒ No
(If "yes", provide EPA hazardous waste number in spaces below)

1		2		3		4	
5		6		7		8	

DISPOSITION

I. NUMBER OF OFF-SITE WASTE SHIPMENTS PER MONTH: None

J. ☒ ON-SITE WASTE MANAGEMENT FACILITIES
FACILITY USE: ☐ Storage ☐ Treatment ☐ Recovery ☒ Disposal

K. WASTE FACILITY DESCRIPTION:
(indicate Type, Size, Capacity)
On site landfill. Approximately 10 acres.

22599 dm

A. WASTE NO. 2 OF 3 | B. SIC CODE (if known) 3296

C. FORM (check one)
☒ Solid ☐ Liquid ☐ Gas
☐ Sludge/Slurry _____ % solid

D. QUANTITY GENERATED PER MONTH:
200,000 (estimated)
☐ Gallons ☒ Pounds ☐ Cubic Yards

E. Predominately: ☐ Organic ☒ Inorganic

F. CHARACTERISTICS: pH 6-7
Solubility Insoluble (g/100g H_2O) Corrosion D.N.A. (mm/yr)
Toxicity D.N.A. (LD_{50}, LC_{50}, LDL_0) Flash Point D.N.A. °C

G. DESCRIPTION (major components): Off specification Mineral fiber insulation

H. Is this a hazardous waste as defined by the U.S. EPA? ☐ Yes ☒ No
(If "yes", provide EPA hazardous waste number in spaces below)

1		2		3		4	
5		6		7		8	

I. NUMBER OF OFF-SITE WASTE SHIPMENTS PER MONTH: None

J. ☒ ON-SITE WASTE MANAGEMENT FACILITIES
FACILITY USE: ☐ Storage ☐ Treatment ☐ Recovery ☒ Disposal

K. WASTE FACILITY DESCRIPTION:
(indicate Type, Size, Capacity)
Same as waste #1

22599.1 f

A. WASTE NO. 3 OF 3 | B. SIC CODE (if known) 3296

C. FORM (check one)
☒ Solid ☐ Liquid ☐ Gas
☐ Sludge/Slurry _____ % solid

D. QUANTITY GENERATED PER MONTH:
160 (estimated)
☐ Gallons ☐ Pounds ☒ Cubic Yards

E. Predominately: ☒ Organic ☐ Inorganic

F. CHARACTERISTICS: pH D.N.A.
Solubility D.N.A. (g/100g H_2O) Corrosion D.N.A. (mm/yr)
Toxicity D.N.A. (LD_{50}, LC_{50}, LDL_0) Flash Point D.N.A. °C

G. DESCRIPTION (major components): Waste paper, used pallets and general plant trash.

H. Is this a hazardous waste as defined by the U.S. EPA? ☐ Yes ☒ No
(If "yes", provide EPA hazardous waste number in spaces below)

1		2		3		4	
5		6		7		8	

I. NUMBER OF OFF-SITE WASTE SHIPMENTS PER MONTH: 10

J. ☐ ON-SITE WASTE MANAGEMENT FACILITIES
FACILITY USE: ☐ Storage ☐ Treatment ☐ Recovery ☐ Disposal

K. WASTE FACILITY DESCRIPTION:
(indicate Type, Size, Capacity)
Municipal sanitary landfill.

22599.1 f

Photographer / Witness

Chapman / Verhalen

Date / Time / Direction

8-27-85 / 1030 / Facing NE

Comments: Station 10

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Chapman / Verhalen

Date / Time / Direction

8-27-85 / 1045 / Facing South

Comments: Station 11

Photographer / Witness

Chapman / Verhalen

Date / Time / Direction

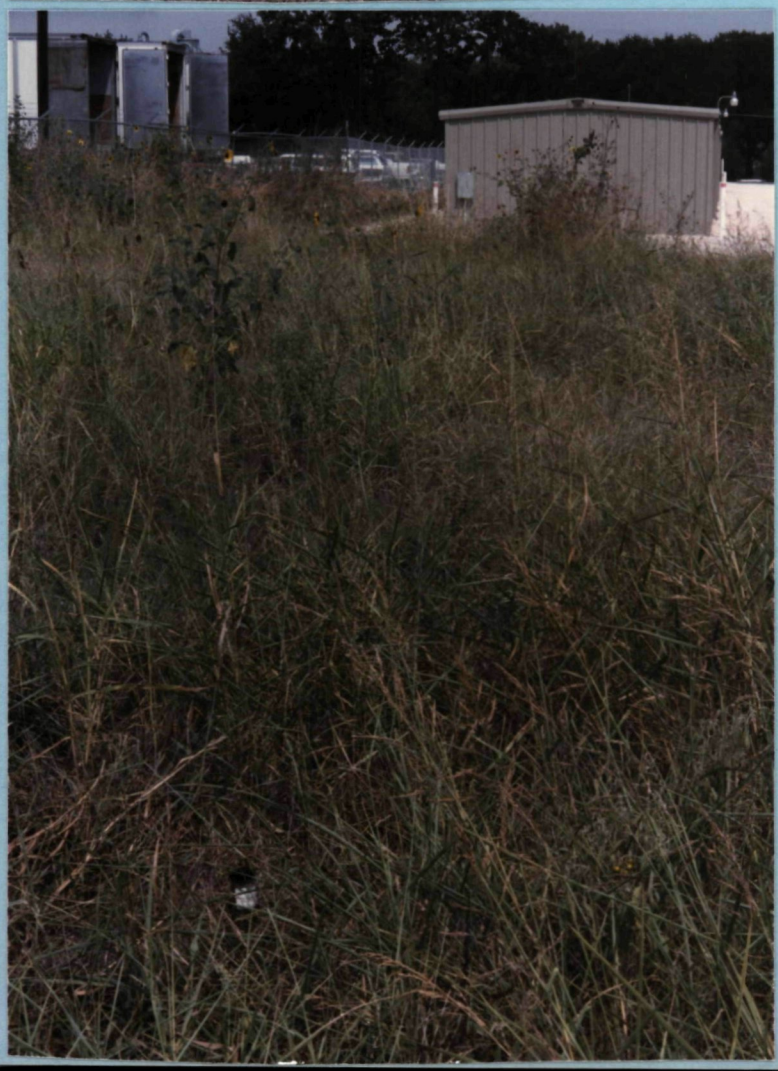
8-27-85 / 1110 / Facing North

Comments: Station 12

Photographer / Witness

Date / Time / Direction

Comments:



Photographer / Witness

Chapman / Verhalen

Date / Time / Direction

8-27-85 / 1130 / Facing North

Comments: Station 13

Photographer / Witness

Chapman / Verhalen

Date / Time / Direction

8-27-85 / 1145 / Facing East

Comments: Station 14

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Chapman / Verhalen

Date / Time / Direction

8-27-85 / 1200 / Facing South

Comments: Station 15

Photographer / Witness

Date / Time / Direction

Comments:

Photographer / Witness

Chapman / Verhalen

Date / Time / Direction

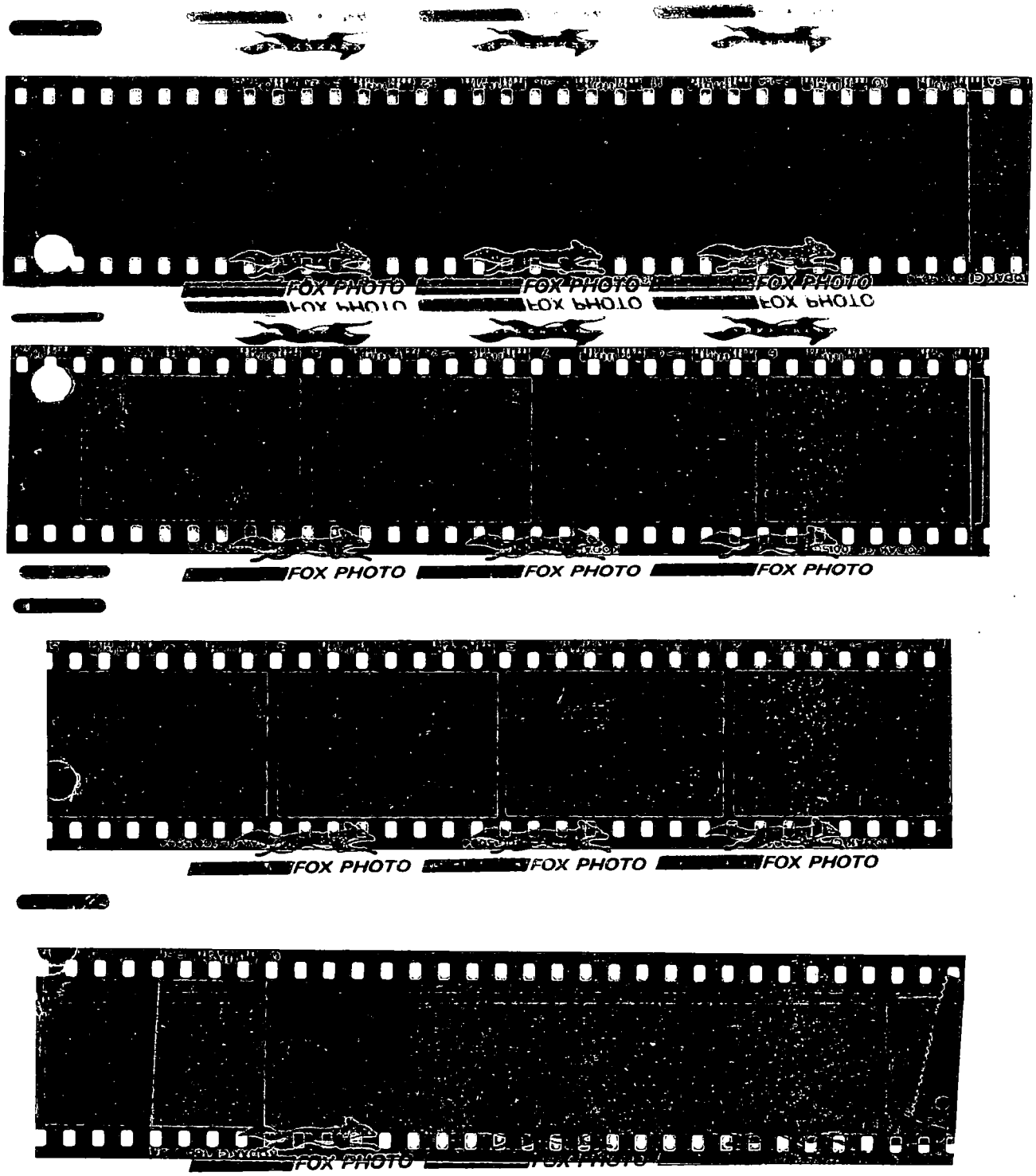
8-27-85 / 1210 / Facing West

Comments: Station 16

Photographer / Witness

Date / Time / Direction

Comments: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